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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/045,416

10/26/2001

David J. Kunst

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9958

7590

02/03/2005

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EXAMINER

DEB, ANJAN K

ART UNIT

PAPER NUMBER

2858

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**SUPPLEMENTAL  
Notice of Allowability**

**Application No.**

10/045,416

**Examiner**

Anjan K Deb

**Applicant(s)**

KUNST ET AL.

**Art Unit**

2858

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE and amendment filed 12/20/2004.
2. ☒ The allowed claim(s) is/are 5,6,23-29,31 and 41-69.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to RCE and amendment filed 12/20/2004.

#### ***Allowable Subject Matter***

2. Claims 5,6,23-29,31,41-69 are allowed.

#### ***Reasons for Allowance***

3. The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of the claims 5,6,23-27,41-45,49-69 is the inclusion of a dependent measurable current source coupled with the scaled reference current source for generating a measured current whereby the amount of measured current is a function of a first voltage drop across the measurable circuit element and the state of measurable circuit element is determined by the difference between the scaled reference current and the measured current.

The primary reason for allowance of the claims 28,29,31,46-48, is the inclusion of replicate element coupled with the adjustable test current source for receiving the adjustable test current so as to result in a second voltage drop across the replicate element whereby a voltage at one terminal of the replicate element is compared with a second sense voltage to provide a feedback to adjust the adjustable test current.

Audy (US 6,246,243 B1) disclosed apparatus (Fig. 2) for determining a state of a measurable circuit element (L1) having plurality of states (intact, blown) and a different

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impedance in each state comprising a replicate circuit (Q3, Q5, Rth) configured to generate a test current and a trim determination circuit (Q4,Q6,LOGIC OUTPUT) including the measurable circuit element (L1) coupled with the replication circuit for receiving the test current ( $i_{del}$ ) and indicating (LOGIC OUTPUT) at least one of the states of the measurable circuit element (L1). Audy lacks scaled reference current source for generating a measured current whereby the amount of measured current is a function of a first voltage drop across the measurable circuit element (L1).

Johnson (US 5,059,916) disclosed (Fig. 5) apparatus for determining a state of a measurable circuit element 14 having a plurality of states and a different impedance (variable resistance) in each state comprising a replicate circuit (35,34,32,33) configured to generate an adjustable test current and a trim determination circuit (36,14) coupled with the replication circuit for receiving the adjustable test current. Johnson lacks scaled reference current source for generating a measured current whereby the amount of measured current is a function of a first voltage drop across the measurable circuit element (14).

*Pertinent art*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arnoldi et al. (US 4,041,388) disclose circuit for determining a state of a measurable circuit element (transistor)(19) having a plurality of states comprising a replicate circuit 13 (Figure).

Genova (US 20020063573 A1) discloses circuit for monitoring the current delivered through a power transistor (NMOS\_POWER), comprising a replicate circuit with an image transistor (NMOS\_POWER<sub>SENSE</sub>) that produces on a sensing node a scaled-down replica current of the current being delivered through the power transistor.

Thiery, Vincent (US 20040227539 A1) discloses circuit (Fig. 3) for determining a state of a measurable circuit element (LOAD) comprising replicate circuit 20B coupled to scaled reference current source 109.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is (571)-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le, can be reached at (571)272-2233.



**Anjan K. Deb**

Patent Examiner

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2/2/05

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